Ghosts of the Selkirks

by Wayne van Zwoll

Extreme northeast Washington is a mixture of bog, deciduous bottomland and dense conifer forest. Crystalline lakes shimmer at the foot of the steep, wooded slopes of the Selkirk Mountains.

Much of this area is seldom visited by man. Though loggers have shaved the old-growth forests in places, thousands of acres have yet to be touched by a saw. The patchwork of logging slashes, natural meadows and homesteads in Pend Oreille County provides a diversity of wildlife habitat.

Animals frequenting this primitive country are not what you might expect to find in a tiny corner of the West's second-most-populous state. Besides a variety of small mammals — including martens, fishers, northern bog lemmings and an occasional wolverine — Pend Oreille County boasts a large wintering population of bald eagles and many resident ospreys. Whitetail and mule deer inhabit forest fringes and a small herd of elk is on the increase. Black bears, moose, cougars and even a few grizzlies make their homes in the more remote sections of the Selkirks. An introduced band of bighorn sheep thrives near Sullivan Lake.

Among the most elusive residents of Pend Oreille County are its caribou. Like grizzlies, these north-country creatures might seem out of place below the Canadian border. Indeed, both species cross this boundary at will. But the caribou are unique. Inhabiting the juncture of Idaho, Washington and British Columbia, they constitute the only remaining herd of

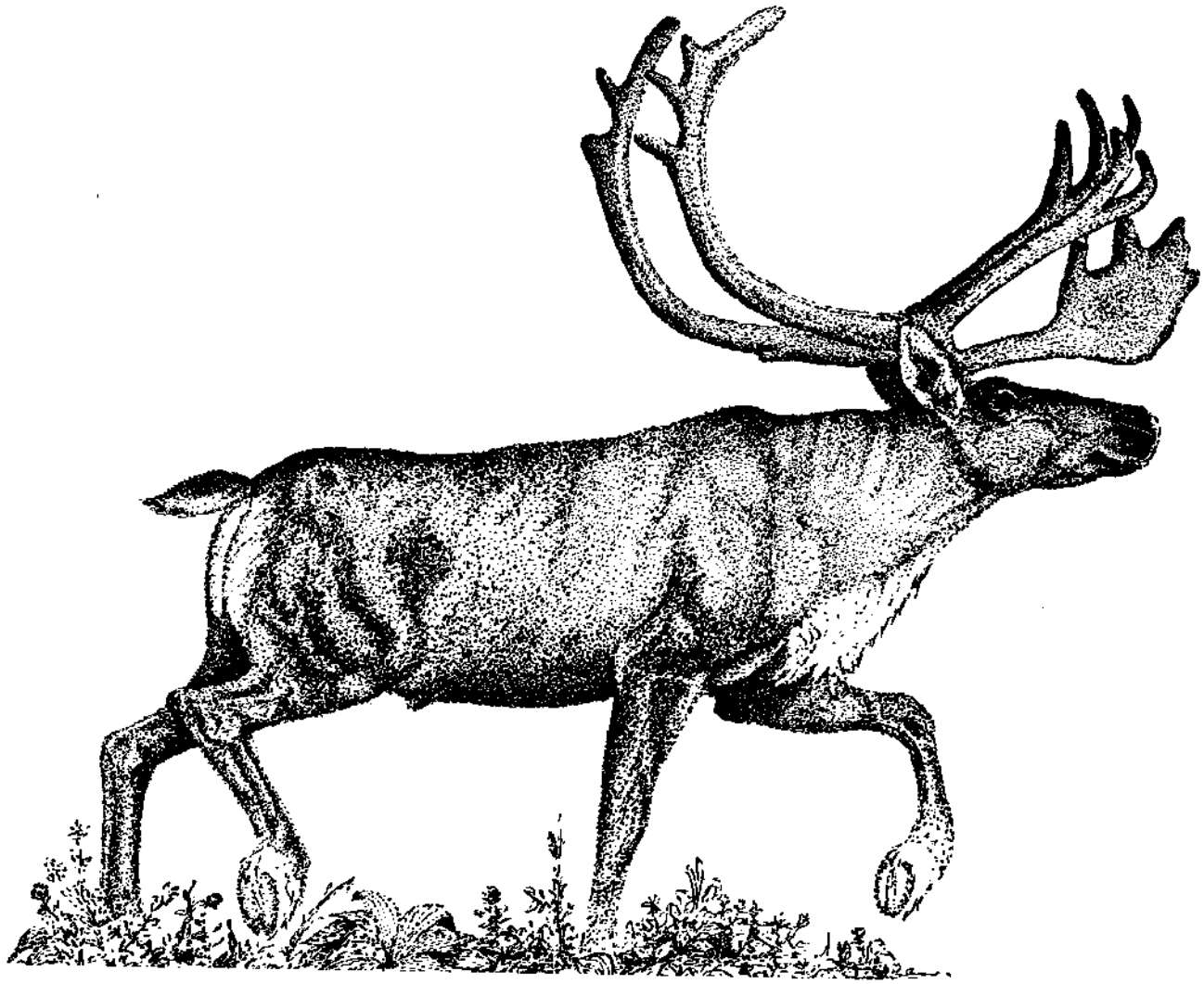

Illustration: Pam Wood

these creatures in the lower 48 states.

Herd estimates of roughly 20 animals prompted the U.S. Fish and Wildlife Service to declare the Selkirk Mountain caribou a federal endangered species in January. It was already on the state "endangered" lists of both Washington and Idaho.

Caribou are members of the deer family. They inhabit the northern coniferous forests and tundra of North America, Norway, Finland, Sweden and the U.S.S.R. Europeans call these animals reindeer, but on this continent that name is reserved for domestic caribou. The earliest evidence of caribou dates back 440,000 years in northern Germany.

One of the first records of Selkirk caribou appears in *The Wilderness Hunter* by Teddy Roosevelt, who hunted these animals in 1888 and shot a mature bull. At that time, the caribou numbered in the hundreds and roamed as far south as Idaho's St. Joe River. They were also prevalent in the North Fork of Montana's Flathead drainage, as well as in the Pend Oreille River Valley of Washington.

Five subspecies of caribou are currently recognized in North America. A sixth, formerly of the Queen Charlotte Islands, is extinct. The Selkirk caribou of northwest Washington is regarded as a mountain ecotype of the woodland caribou (*Rangifer tarandus caribou*) by some Canadian biologists. But University of Idaho professor Dr. Don Johnson, who has studied these animals extensively, maintains that they are a separate subspecies. His contention has considerable support from other stateside biologists who say the Selkirk animals have been geographically segregated from other caribou for many generations and display physical differences sufficient to distinguish them from others of their genus.

Northwest Trek - Karen Denman

The current birth rate for the Selkirk caribou herd is only four or five per year. Biologists fear that a slight increase in mortality from poaching and road kills could be disastrous to the herd.

Caribou are midway in size between deer and elk. Selkirk bulls average 86 inches in length and about 50 inches high at the shoulder. Cows measure roughly 80 inches long and 47 inches tall. A big bull may exceed 500 pounds, though most are closer to 400. Cows weigh about 20 percent less.

Both sexes may have antlers, though some races of caribou are characterized by high numbers of antlerless females. Antler growth of female caribou is rarely more than a thin spike with a small fork at the brow. A bull's headgear is much larger and more palmate, and each antler comprises four main parts. The "shovel," or brow tine, extends over the nose from the antler base. The bez point, or second tine, branches just above the shovels. A long main beam terminates in a top palm high over the animal's head.

Like all true deer, caribou shed their antlers each year, mature bulls dropping theirs in December. Pregnant cows retain antlers until after calving in the spring, while young bulls and barren cows drop theirs just prior to calving season.

Caribou are ungulates, with wide, cloven hooves that are well-adapted for pawing snow from buried forage in the winter or for walking through muskeg and over crusted show. In fact, the name "caribou" derives from a Micmac Indian word "xalibu," meaning "one who paws." Ruminants, these animals have four stomach compartments and chew their cud much like cattle.

Although caribou have roughly the same coat pattern in all parts of their range, color, shade and intensity differ with habitat. The forest-dwelling Selkirk animals have, predictably, a darker pelage than their barren-ground cousins: A white rump and mane set off a dark chocolate or slate torso with pale belly, dusky legs and face. Females are generally lighter-hued than males.

Like others of the deer family, caribou are polygamous. Each mature bull collects a harem of cows during the September rut, and mating extends into October. Bulls are able to breed at a year and a half of age, while cows at least 2½ years old may have one calf each spring. Calves are born in late May and early June, following a 230-day gestation. Calving grounds for the Selkirk herd are in southeast British Columbia.

Bull caribou are socially dominant during late summer and fall, especially when in rut. But during the winter, antlered females dominate the herd. This change in social structure ensures that pregnant cows will garner enough forage to nurture unborn calves through winter's stress periods.

The Selkirk caribou, while shy, retiring creatures, do not display the alertness of other members of the deer family. They often appear docile and curious, especially in groups. When followed, caribou will often run a short distance and stop or will try to circle their pursuer.

Home-grown Spinyrays

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Stu Mercer, a fish biologist who was involved in the department's sea-run cutthroat program for the past few years, has been transferred to the Yakima region as part of the warmwater fish-culture program.

Some of the raceways and other equipment already in place at the hatcheries can be used for spawning and rearing warmwater fish to fry size, but since both hatcheries were originally designed to produce trout and steelhead, some new equipment is being added. Spawning and rearing warmwater fish also calls for specialized techniques not used in the production of trout.

Channel catfish, for example, must be paired off, with one male and one female placed in each of 50 wooden cages. Each cage is about three feet wide, four feet long and four feet high. A spawning box, concrete tile or other kind of cover large enough for both fish is placed in each cage.

After spawning occurs, the eggs are removed to hatching troughs, where they hatch in 5 to 10 days, depending on water temperature. Several hundred channel cats, purchased from a California vendor two years ago, are being held at the Yakima hatchery, and brood fish for this first year's spawning will be selected from those fish.

Fletcher doesn't have a supply of largemouth bass yet for this year's spawning efforts, but he estimates that with a little help from the state's bass fishermen there should be little problem collecting adult bass. Spawning mats made of nylon felt will be installed in two raceways at the Yakima hatchery. Black plastic will be placed over the raceways to help heat the water and provide cover for the spawning fish.

Several days after spawning takes place, the egg-laden mats will be removed and the eggs placed into hatching jars, where they will hatch in about two weeks. As the yolk sac is absorbed and the fry begin to feed, they'll be moved into a rearing facility, where they will feed on naturally occurring organisms. Two dozen temporary rearing pools are now being constructed at the hatchery for that purpose.

Smallmouth bass are cultured much the same as largemouths, but instead of spawning mats, the raceways are equipped with sets of two boxes, one inside the other, with short legs to keep the whole thing off the bottom and prevent siltation. The inner box contains small rocks, into which the smallmouths spawn. The eggs sift through the rocks and settle in a mesh screen in the outer box.

As with largemouths, eggs collected from the boxes are transferred to hatching jars. But unlike largemouths, at least some smallmouth fry can be transferred to other places almost immediately after hatching, depending on the temperature of the water to which the fish are being sent. Smallmouth brood fish were collected earlier this year by Fletcher and members of the Columbia Basin and Three Rivers bass clubs, both of Kennewick.

In some ways, the bluegill is more difficult to produce than the other warmwater species with the facilities available here, according to Fletcher. For one thing, they require warmer water for spawning, and the fry do not remain in tight schools after leaving the nests, so they are difficult to capture for transfer to rearing ponds.

Adult bluegills, rather than spawning just once a season, tend to continue spawning as long as water temperatures are favorable, so a large, continuous supply of food must be provided or the newly produced fry will quickly starve. Fortunately, unlike some other warmwater species, bluegills readily take prepared food pellets, so continuous feeding won't be too big a problem.

Anglers are expected to help provide adult bluegill for this year's spawning. Once the brood fish are collected, several raceways at the Yakima hatchery will be prepared by placing black plastic over them to help warm the water and provide cover for the spawning fish. Spawning will take place on 15 to 20 small piles of pea gravel that will be scattered throughout the raceway. The adult bluegills should begin spawning within 24 hours after they are placed in the raceways, if water temperatures are at least 68 degrees, and the eggs should hatch in about four days.

Like salmon and steelhead, walleyes are spawned by stripping eggs and sperm into pans rather than allowing the adult fish to spawn more-or-less naturally in ponds or raceways. After the eggs are collected, fertilized and allowed to harden for several hours, they are placed in hatching jars, where they hatch in 18 to 20 days if water temperatures are kept at 45 to 50 degrees.

Fletcher, with help from bass club members and other volunteers, captured a number of adult walleyes for spawning earlier this year. The Department of Game also got a million walleye fry from the New Mexico Game and Fish Department in April, and those fish have been stocked in the Pend Oreille River and a couple of eastern Washington lakes.

With a million tiny walleyes from New Mexico now planted in Washington waters, and with more walleyes, channel catfish, largemouth bass, smallmouth bass and bluegills being produced in hatcheries at Naches and Yakima, the Department of Game has taken a big step toward helping to provide adequate numbers of warmwater fish for a growing fishery. Right now it's only a research project, and none of the facilities used for spawning and rearing warmwater fish is permanent. But if things go as hoped, the production of our warmwater fish could some day become a big part of this state's freshwater fish management program. □

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According to Washington non-game biologist Jerry Hickman, the caribou of the Selkirks are holding their own. As a small, isolated population, they have survived the dangers of inbreeding, internal parasites, habitat destruction and illegal killing.

But current herd numbers are too low to stand much buffeting — by man or nature. Considering the herd's vast range requirements, biologists still feel a population of 75 animals is possible without unduly constricting human activity in the area. And some argue that this is a minimum number to ensure herd survival.

Caribou will never be numerous in Washington, but it's a credit to concerned citizens and modern wildlife managers that these animals still wander in the lichen-cloaked forests of northeast Pend Oreille County. With cooperation from other state, federal and provincial agencies, and continued public support for caribou management, these ghosts of the Selkirks may become more visible in the future. □